

Claims

1. A pipe cutting apparatus, comprising a body, a cutter head (1) bearing-mounted rotatably on the body, having a centre rotation axis (C) and having a cutting gap (2) which opens radially sideways for receiving a pipe to be cut, pipe securing elements (8) for fixing the pipe on said centre rotation axis (C) immovably relative to the body, support rolls (21) in the cutter head (1) for supporting the pipe during a cutting process, and a cutting blade (22) in the shape of a sharp-edged disk present in the cutter head (1), which, during rotation of the cutter head (1), is adapted to be advanced towards the centre rotation axis (C) for cutting the pipe by chipless cutting, **characterized** in that the cutter head (1) is provided with a shifting and locking mechanism (12-20, 28-40) for the support rolls (21), which, regardless of the diameter of a pipe to be cut, shifts and locks the support rolls (21) with a single drive and/or control against the surface of a pipe for said cutting support.
2. An apparatus as set forth in claim 1, **characterized** in that the shifting and locking mechanism (12-20, 28-40) comprises

 - a slotted crank plate (12), rotatable about said rotation axis (C) relative to the cutter head (1) and including an arcuate guide slot (15) pivoting a swing arm (16) for the support roll (21),
 - a crank plate shaft (30), having its gear (31) meshed with a toothed arc (28) of the slotted crank plate (12) for rotating the crank plate shaft (30) as the slotted crank plate (12) is turned for shifting the support rolls (21) against the surface of a pipe,
 - a freewheel clutch (32) in association with the crank plate shaft (30) for allowing said rotational motion of the crank plate shaft (30), yet blocking rotational motion in the opposite direction and thereby locking the slotted crank plate (12) in any position at which the support rolls (21) collide with the surface of a pipe to be cut.
3. An apparatus as set forth in claim 1 or 2, **characterized** in that the cutting apparatus is a portable tool with handles (4, 5), which includes a displaceable protective cover (3) that houses the cutter head (1), opens and closes the cutting gap (2) and has its displacement (A) transmitted to the shifting and locking

mechanism (12-20, 28-40) of the support rolls, such that the protective cover (3) has its displacement (A) in one direction shifting the support rolls (21) and the cutting blade (22) to a cutting-ready position and its displacement (A) in the opposite direction returning the support rolls (21) and the cutting blade (22) to a
5 home position in which the cutting gap (2) is vacant.

4. An apparatus as set forth in claim 2 or 3, **characterized** in that the freewheel clutch (32) is encircled by a clamping mechanism (34-40) for optionally locking the freewheel clutch (32) over its outer periphery for no rotation or releasing it for
10 rotation in both directions.